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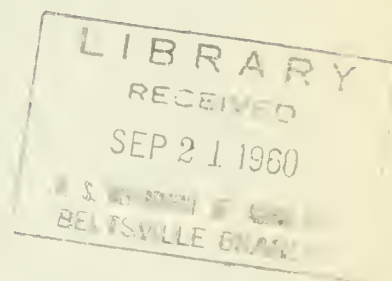


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# Food Consumption and Dietary Levels

*of Households in the United States*



■ ■ some highlights from the  
Household Food Consumption Survey,  
Spring 1955

Agricultural Research Service  
U. S. DEPARTMENT OF AGRICULTURE

## PREFACE

This report presents in summary form some of the findings of a recent nationwide household food consumption survey that are of particular interest to home economists, nutritionists, and economists studying consumption.

The survey was made in April-June 1955 by the Agricultural Research Service and the Agricultural Marketing Service of the U. S. Department of Agriculture. The work was conducted in the Agricultural Research Service by the Household Economics Research Division and in the Agricultural Marketing Service by the Market Development Branch and the Statistical and Historical Research Branch. The data were collected and tabulated by National Analysts, Inc., under contract with the Department.

The 1955 survey is part of the Department's broad program of research on the marketing and utilization of farm products and on family dietary levels. Based on a national probability sample of about 6,000 housekeeping households of one or more persons, it is the most comprehensive food consumption survey yet undertaken. A detailed description of the sample design and its appraisal are presented in the first of a series of published reports on this survey. (For list of published reports see back cover.)

Housekeeping households were defined as those in which at least one member had 10 or more meals from home food supplies during the week preceding the interview. Trained interviewers obtained information, usually from the homemaker, on the number of meals eaten at home and away from home by each individual in the household, expenditures for food eaten away from home, quantities of all food items used at home during the 7 days preceding the interview and expenditures for the purchased items, selected household food practices during the previous year, and various family characteristics, such as income, needed for classification of the data.

The reports of the survey already released consist largely of statistical tables. This publication presents interpretations by staff members of the Household Economics Research Division, Institute of Home Economics, ARS, of some of the survey findings in Reports 1-10. Additional findings and interpretations of the survey data have been made by staff members of the Agricultural Marketing Service and have appeared chiefly in the Situation reports of AMS.

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# FOOD CONSUMPTION AND DIETARY LEVELS OF HOUSEHOLDS IN THE UNITED STATES

Families in the United States today, as for some years past, are in a favorable situation with respect to food. Generous and varied food supplies are available on the market. Larger numbers of families can spend more than ever before to buy food because recent income increases have for the most part more than kept up with increases in consumer prices. In this report are summarized some of the findings from a nationwide survey of family food consumption in 1955 on how much and how well U. S. families are eating.

## FOOD CONSUMPTION <sup>1</sup>

### U. S. Families--Their Food Pattern

Housekeeping families of 2 or more persons in the United States spent an average of \$28.50 for food in 1 week, according to the 1955 survey. Taking the survey week as typical, the average family, after deducting for State and Federal income taxes, would have set aside about one-third of its money income for food. Adding the \$2.70 worth of food from the home farm or garden or received as gift or pay, the total money value of food came to more than \$31 for the week. With the number in the family averaging 3.6 persons, food for a day had a value of \$1.25 per person. The major portion of this food was eaten at home, but meals and snacks away from home in the week accounted for \$5.00 of the \$28.50 the family spent for food.

In selecting food to prepare at home the average homemaker used the largest portion (36 cents) of her food dollar for meat, poultry, fish, and eggs, and nearly half as much (15 cents) for milk and milk products other than butter. About 19 cents went for potatoes and other vegetables and fruits, 10 cents for flour, cereals, bread, and other baked goods, and the remaining 20 cents for fats, sweets, and all other foods.

The quantities of food per person for the week provided by the average selection included among other things--4-1/8 pounds of meat, poultry, and fish, of which a third was beef and a fourth pork; 4-1/2 quarts of whole milk or its equivalent in milk products (in terms of calcium content); 2 pounds of potatoes; 4 pounds of other vegetables and 4 pounds of fruits; 1-1/4 pounds of sugars and sweets; nearly a pound of fats; 1-1/2 pounds of bread, over 1/2 pound of other commercial baked goods, and nearly 2 pounds of flour and other cereal products. (The per person averages have been computed to provide for 21 meals a week, counting meals away from home as equal to meals at home.)

In terms of quantities of food to use in serving family meals these figures add up to a generous diet. For example, 4-1/8 pounds per person would provide, on the average, enough to serve meat, poultry, or fish more than once on most days of the week. Such consumption reflects the fact that in terms of price and income relationship 1955 was a relatively good year for most families. Moreover, in the spring of that year supplies of meat were plentiful and prices relatively low.

### Differences in Food Consumption

Although the general picture is one of abundant family food supplies, the averages conceal the great variation in family food practices. For example, for all families of 2 or more, the average money value of all food used at home in the week came to \$7.50 per person. But for more than a fourth of the families the value of a week's food was less than \$6 per person and in an almost equal number it came to \$10 or more.

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<sup>1</sup> By Mollie Orshansky, from Nutrition Committee News, March-April 1957.



Today's markets offer a wide variety of foods in different stages of processing and in different price ranges. Home production and preservation practices of rural families also play a role in permitting variety throughout the year. Families exercise a good deal of individuality in their selections among foods and in the amount they spend for them. Some of this diversity reflects likes and dislikes of family members for particular foods, while some represents different degrees of knowledge about nutrition requirements and food composition. Factors such as these make family-to-family variability difficult to measure and to predict.

On the other hand when families are grouped by their income or household size or their place of residence, it is possible to detect some systematic variation in food consumption. Such data help us understand the market for various foods and estimate the effect of changes in the population or distribution of income. They are useful also in making and pricing food budgets at different cost levels. They also serve a special function in programs for education in nutrition and food economics, by identifying the population groups who could benefit most from such programs and showing the food habits of these groups, which are the point of departure for the programs.

The major socio-economic factors known to have a bearing on a family's food consumption may be grouped into those relating to the community in which the family lives, those relating to the family itself, and those relating to the person who takes the major responsibility for planning meals for the household--usually the homemaker. These factors, to be sure, are not wholly independent of each other.

The data published in the survey reports make it possible to study differences in the diet pattern by degree of urbanization and the region in which the family lives, differences related to the income available to the family and, in limited degree, differences among families of different size. Analyses to show further differences related to family composition and those associated with the age, education, or employment of the homemaker will be made later.

### Urbanization

Perhaps the most marked diversities in food consumption are between families living in cities and those living on farms. Farm families generally have more food (measured in calories), chiefly because their outdoor physical work requires large quantities of food energy and because of the large amounts of food supplied by the home farm or garden. When the home-produced foods are valued at prices the family would normally pay to buy them, they represent about 40 percent of all the food used at home and away by the farm family. Although still a substantial share, it is considerably less than it used to be. The proportion of food home-produced varied among farm families, but virtually every family had some.

Money value of food.--For the survey week the total value of food used by farm families averaged \$29.25, or \$7.10 per person. By contrast the urban average was \$32.75, which, with the smaller size of city families, came to \$9.40 a person. Families classified as rural nonfarm--i.e., living in communities of less than 2,500 persons and outside the fringe areas around cities of 50,000 or more but not on farms--used food valued at \$7.60 a person in the week, considerably less than city families but somewhat more than the average for those on farms. Many rural nonfarm families produce some food for themselves, although much less than the average farm family.

Food produced by families for their own use has been valued at prices paid for similar items purchased by survey families in the same region-urbanization group. Since many rural families customarily buy some foods, such as eggs or fruits and vegetables, from a neighbor or other local outlet, the prices they report are less than the regular retail price usually paid by most city families. For example, the North Central farm families that bought eggs to use in the survey week paid only 35 cents a dozen compared with 41 cents reported by rural nonfarm and 50 cents by city families in the same region. If the food of the farm and other rural families was valued at prices

commonly paid in city markets, the money value of their food would undoubtedly be greater than that of city families.

Farm families spent only half as much for food as the urban families and the rural nonfarm 80 percent as much. However, since rural families generally have lower incomes, the share of money income going for food was nearly the same for the three groups, about one-third.

There was considerably more eating out among city than among rural families: some food was purchased and eaten away from home in 10 out of 12 city families, but in only 9 out of 12 rural nonfarm families and 8 out of 12 farm families. Furthermore, the city family that did eat away from home spent nearly 1-1/2 times as much as the rural nonfarm family and more than twice as much as the farm.

Food quantities.--Combining the various foods into broad groups, we see that the most striking difference is the relatively larger role of milk, grains, sugars, and fats in the farm family diet and the lesser relative importance of meat, as shown by the figures below, which give quantities per person for 1 week:

		<u>Urban</u>	<u>Rural</u> <u>nonfarm</u>	<u>Farm</u>
Meat, poultry, fish.....	lb.....	4.4	3.8	3.8
Eggs .....	doz.....	.6	.6	.7
Vegetables, fruits, potatoes.....	lb.....	10.2	9.6	9.6
Dark-green and deep-yellow vegetables.....	lb.....	.6	.4	.4
Citrus fruits <sup>1</sup> .....	qt.....	.6	.5	.4
Milk, cream, ice cream, cheese <sup>2</sup> .....	qt.....	4.3	4.4	5.2
Fats, oils.....	lb.....	.8	.9	1.1
Sugars, sweets.....	lb.....	1.1	1.3	1.8
Flour, cereals, baked goods <sup>3</sup> .....	lb.....	2.6	3.3	3.9

<sup>1</sup> In terms of single-strength juice.

<sup>2</sup> In terms of fluid whole milk on the basis of calcium content.

<sup>3</sup> In terms of flour and dry cereal content.

City families, as we see, had nearly a quart less per person of milk and milk products (measured in calcium equivalent) than farm families. But the difference was not only in quantity. The farm families, who as a group home-produced 68 percent of their milk, used a larger proportion in its original form and less as processed milks or cheese than families who generally bought their milk. For example, fluid milk and cream made up 83 percent of the total milk products used by farm families, and processed milks and cheese 12 percent, compared with 76 percent and 18 percent respectively for city families.

Turning to meat, we find urban families averaging about half a pound more per person than farm families, and again there is a difference in kind as well as in amount. Most families, farm and nonfarm alike, used pork during the week--an average of about a pound a person--but city families were more likely to use some beef or poultry in addition, as indicated by the following figures, which show the percent of households using each of these foods:

	<u>Urban</u>	<u>Rural</u> <u>nonfarm</u>	<u>Farm</u>
Pork .....	91	93	91
Beef.....	94	85	79
Poultry.....	60	50	50

Farm families, with their home food production and preservation, had more of their vegetables fresh or home-canned or home-frozen and less commercially processed than the nonfarm families.

The rural families not only had considerably more grain products in their diets, but they also had a larger proportion as cereals or as flour used in home baking than the city families, who bought more bread and other baked goods.

Even this abbreviated look at the food pattern reveals that farm families are likely to have more food in total pounds than the nonfarm, although it is of lower money value. Quantities of milk, eggs, fats, sugars, sweets, and grains are larger in farm menus; quantities of meat, fruits, and vegetables are smaller. What this means in terms of the nutrient content of the diets is shown in the next section, which reports on dietary levels.

Another difference between farm and city diets, not shown here, is the larger share of beverages in the city family food budget, representing larger reported expenditures for beer, wine, and the like. Farm and nonfarm families averaged about the same money outlay for coffee, tea, soft drinks, and other nonalcoholic beverages.

### Region

With the United States covering so large a geographic area we would expect to find regional variation in food patterns, if only because of differences in the kinds of food produced. We might, perhaps, also anticipate some differences lingering on to remind us of the ethnic groups that originally settled the various parts of the country.

The food survey reports show that there are indeed regional differences, but generally they are slight and often no greater than those among families of different income groups within a region. Of the four broad regions identified in this survey--Northeast, North Central, South, and West--it could be said that the South generally was more different from the other regions than they were from each other.

Food expenditures were lower in the South. For the total spent for food at home and away from home by families of 2 or more persons, the averages for a week in spring 1955 for the Northeast and the West were \$32; North Central, \$30; and South, \$23. Relatively less of the southern food dollar went for food away from home. Since the southern families were larger, differences per person were relatively greater.

On the whole, North Central families used more milk and milk products, more meat, potatoes, fresh or home-preserved fruits, and commercial baked goods than other families but less fresh or home-processed vegetables. In the South, families had considerably more flour and cereals and fresh vegetables than in other regions, more fats and sugars, and less milk, meat, and commercial baked goods.

Because the division of the population between urban and rural is not the same in all parts of our country, many of the seemingly regional differences are actually differences between urban and rural food habits.

Food expenditure patterns.--Using the division of the money value of food as a convenient device for comparing consumption patterns, we find that for food used at home, urban families, no matter what region they live in, put about the same emphasis on different types of food. The same is true for rural nonfarm and farm families, so that the distributions for all U. S. families apply equally well to a region. In other words, on the average, the current food pattern of the urban family in one region is much like that in another, but it does differ from that of the farm family in its own region. In turn, however, the farm family pattern in any one of these broad regions is much like that of farm families elsewhere.

Patterns for the average U. S. farm and nonfarm family in any region, then, may be summarized as follows in terms of the percent of money value of the food represented by each group:



	<u>Urban</u>	<u>Rural</u> <u>nonfarm</u>	<u>Farm</u>
Meat, poultry, fish, eggs.....	37	34	32
Vegetables, fruits, potatoes.....	19	19	19
Milk, cream, ice cream, cheese.....	14	15	19
Fats, oils, sugars.....	7	9	10
Flour, cereals, baked goods .....	10	11	10
Beverages.....	9	8	6
Other .....	4	4	4
Total.....	100	100	100

These figures show, as did the per person quantities quoted earlier, the greater emphasis on meat and similar foods in the urban meals than in the farm meals and the lesser relative emphasis on milk and milk products in urban diets. Although the farm and nonfarm families, as shown earlier, used different amounts of fruits and vegetables and grain products, we see now that in terms of money value such items held the same prominence in diets of both groups.

Some regional differences remain, to be sure, even when comparisons are made only among urban or among farm groups. In part they are explained by differences in income. Farm families in the South, for example, because their income averaged much lower than that of farm families in other regions, had considerably lower food expenditures (nearly \$15.00 in the week per family, about \$4.50 less than the average for the Northeast, North Central, and the West). Home-produced food was also a little less in the South (\$10.40 per family, about \$1.25 less than the average for farm families elsewhere) although it made a larger percentage contribution to the food supply than in other regions.

Food quantities.--It is not possible here to summarize all the region-urbanization differences (and similarities) revealed in this survey. Charts 1 and 2 bring together some of the findings for city and farm families in the North Central and Southern regions. Since family spending is known to be related to the economic level of the community as well as to that of the family itself, we have selected families at the same relative income position for comparison. That is, the charts show average consumption of a number of foods by families in the median-income class for each region-urbanization group. (The median income is that income which is higher than that of 50 percent of the families and lower than that of the remaining 50 percent.) These median-income classes (for money income in 1954 after income taxes) were:

	<u>North Central</u>	<u>South</u>
Urban.....	\$4,000-\$4,999	\$3,000-\$3,999
Farm .....	3,000- 3,999	1,000- 1,999

The charts show that North Central families used more meat, milk, fruits, vegetables, and bakery products than their southern counterparts, but less flour and cereals. Greater use of grain products and more home baking has traditionally been a feature of the southern diet. Other differences between the two regions were that more fats and sugars were used as such (i.e., not in processed food) in the South, and larger amounts of potatoes were used by North Central families. It should be noted that urban households compared in both regions averaged about 3.6 persons, but farm households shown for the North Central region averaged only 4 persons compared with 4-1/4 in the South.

### Income

The nature of the relationship between a family's total spendable income and the amount it spends for food is well known. On the average, families increase the amount they spend for food as income increases, but at a proportionately slower rate so that the percent going to food is less for high-income families. We know too that some of this

increased spending goes for larger quantities of many foods, and much of it goes for increased services in the form of foods requiring less preparation by the homemaker and also to meals purchased away from home. The recent survey confirms these facts and provides quantitative measures of them.

Because it is not complicated by home-produced food, the relationship between income and family food consumption is more direct for urban than for farm families. Many problems in understanding this relationship still remain. It would be helpful to know whether the reported income of individual families is typical, or unusually high or unusually low, since many families do not make adjustments in their spending until some time after a change in income takes place. On the other hand, even when income is typical, illness or other unusual expense may cut into money ordinarily available for food in some families, whereas in others, such as those of retired persons, savings and other assets may be used to supplement a low income. This survey, like most family consumption surveys, did not obtain information on these points.

Food expenditures.--On the average, food expenditures of city families of 2 or more were about \$3.00 a week (or \$150 a year) higher for each \$1,000 that net money income was higher. For farm families the average difference for each \$1,000 of income was \$2.00 a week. These figures represent the average effect of adding \$1,000 to family income. However, at low incomes considerably more of an income increase goes for food. For example, a low-income city family with \$1,000 more to spend would use 28 percent of the extra money for food, but a high-income family receiving \$1,000 more would spend only 5 percent of it on additional food purchases.

For purposes of discussion, we have selected three groups of city families--a low-income group (\$2,000-\$2,999), the median-income group (\$4,000-\$4,999), and a high one (\$6,000-\$7,999). For city families in the median-income group the food purchased in the survey week represented an annual rate of 37 percent of family income, compared with 48 percent of income in the low-income group, and only 29 percent for the high-income families. The average food cost for the week was \$23.25 per low-income family, \$31.60 for a family in the median group, and \$37.50 per high-income family. High-income families used nearly one-fourth of their food dollars for meals and other food away from home, and the low-income families only one-eighth.

These are average patterns--but some families with low-incomes spent as much or more for food as some with high incomes. For example, 1 out of 4 city families with low incomes served food at home valued at \$9 or more per person, while 1 out of 4 of the high-income families used food valued at less than \$7 per person. It is obvious that there is a wide range within which a family can plan its food purchases and still not be unusual compared with others in similar circumstances.

Food quantities.--Charts 3 and 4 show some of the differences in the average diets of low- and high-income city families. The higher income families purchased larger quantities of most foods--more than enough to make up for their larger family size. The larger amounts of baked goods and smaller amounts of flour and cereals used by the high-income families, like the greater share of their money spent for eating out, typify the shift from services provided by the homemaker to those performed for her as more money becomes available.

Although there are considerable differences in the quantities of specific foods used and the money outlay for them by families at different incomes, the division of the food dollar among the major food groups does not change. Chart 3, for example, shows the high-income family buying over 4 pounds more fresh fruits and vegetables than the low-income family, yet in both groups 9 cents of each food dollar went for these foods. Similarly, chart 4 shows the family with high income using 3 pounds more meat, poultry, and fish than the low-income family, yet in each case these foods took 33 cents of the food dollar. In both groups, as well as for the median-income families, the division of the food dollar is for all practical purposes the same as that given earlier for all urban families. This finding, noted in earlier studies as well, is of interest to those helping families that spend different amounts for food plan their food budgets.

Food choices.--Families with more money to spend often chose more costly foods within a food group. For example, the low-income families paid, on the average, 56 cents a pound for meat while the median- and high-income families paid 62 and 66 cents respectively. The low-income families had less beef than the other families, and when using beef were less likely to choose steak and other relatively expensive cuts. Only 37 percent of the meat of the low-income families was beef, compared with 43 percent for those with median and high incomes. Steak (other than round) appeared on the menu during the week in 24 percent of the low-income families, and in 37 and 44 percent respectively of the median- and high-income households.

Although the amount of fats and oils used by households increased relatively little with income, the average price paid per pound increased. For the three groups of city families considered here, the price per pound went from 34 cents at the low incomes to 37 at the median and 40 cents at the high. This meant, among other things, a drop in the percent of households using lard from 27 percent at low-incomes to 10 at the high, and a rise in the percent using salad or cooking oils from 18 to 33 percent. Families with more money to spend were more likely to have butter and less likely to have only margarine, as the following percents of urban households using each show:

	<u>Low-</u> <u>income</u>	<u>Median-</u> <u>income</u>	<u>High-</u> <u>income</u>
Any table fat.....	97	99	99
Butter only.....	30	34	41
Butter and margarine.....	21	27	27
Margarine only.....	46	38	31

This pattern for use of table fats, however, is more pronounced for North Central and Northeast city families than for those in the South and West. In the latter regions the families generally were less likely to use butter and more likely to use margarine than in the rest of the country. Butter and margarine, used by many families as table fats, are used by some as a shortening, while other families prefer lard or hydrogenated fats for this purpose.

Processed foods, too, were more likely to appear on the shopping lists of families with higher incomes, as illustrated by the percent of urban households using commercially canned or frozen fruits and vegetables:

	<u>Low-</u> <u>income</u>	<u>Median-</u> <u>income</u>	<u>High-</u> <u>income</u>
Frozen fruits and vegetables .....	26	43	55
Canned fruits and vegetables .....	86	91	90
Fruit and vegetable juices (fresh, canned, or frozen) .....	55	72	78

Income differences in food consumption among rural farm and nonfarm families, not discussed here, are similar to those illustrated for urban families. Because rural families produce some of their food the differences in food consumption with change in income are not quite so marked as for city families, although probably greater than many persons believe. Producing food at home often means using more total food rather than buying less. After a certain point--which differs with family income and with the kinds of food produced--increased home production brings little reduction in food expense.

#### Family size

The only data as yet available from the survey on families of different sizes are averages of total cost of food at home and away.

In the main, the averages confirm what we already know--namely, large families usually spend more for food than small families having the same income. Comparing



food expenditures of large and small families with about the same income shows differences similar to those observed between low- and high-income families. The food budget takes a larger slice of family funds in the larger families but dollarwise each member gets less. We illustrate this for city families in the median class used above (\$4,000-\$4,999). As the following figures show, families of 6 were spending an average of nearly half their income for food, while families of 2 were spending only a fourth, yet the large families had less than two-thirds as much food, dollarwise, for each person.

	<u>Percent of income spent for food</u>	<u>Money value of food per person</u>
2-member families.....	26	\$11.54
3-member families.....	35	10.30
4-member families.....	39	8.74
5-member families.....	46	8.20
6-member families.....	48	7.10

No doubt it is possible to prepare food more economically for a large family than a small, and there is likely to be less waste. The fact that large families more often include young children means they may need less of some foods per person than small families. However, when additional data are available by family size, they will undoubtedly show as in other surveys that the differences are not all explained in this fashion. The quantities used per person of most foods, particularly those relatively high in price, are considerably less in large households than in small. This would follow from the fact that per capita income is lower in large households.

Expenditure data show that another way large households cut costs is by cutting the outlay for food consumed outside the home. Not only do large families purchase fewer meals away from home, but a person in a large family who does eat out usually spends less than one in a small family.

Variation in food consumption of farm families with family size follows much the same pattern as in city families, with the added factor that food purchases decrease more than home production, as shown by the following figures for U.S. farm families in the median income class (\$2,000-\$2,999):

	<u>Percent of income spent for food</u>	<u>Money value of food per person</u>	
		<u>Purchased</u>	<u>Without direct expense</u>
2-member families.....	29	\$6.92	\$4.14
3-member families.....	35	5.52	3.64
4-member families.....	37	4.36	3.07
5-member families.....	36	3.37	2.90
6-member families.....	45	3.45	3.07

In this income class, the average person in a family of 5 had only half as much purchased food (in dollar terms) but over two-thirds as much home-produced as a person in a family of 2.

Although the value of home-produced food of farm families does not increase in systematic fashion as income increases, it does tend to be larger in larger families. Extending home production is apparently one way the family with a large number to feed keeps food consumption from dropping as low as restricted purchases would otherwise make necessary.

## Consumption Trends

With both income and prices much higher than they used to be there has been a change in family food consumption. Certainly families are spending more for food. In 1955, the average family food expense for a week was about three times that in 1942. (Food prices, as measured by the Consumer Price Index, rose about 81 percent in this period.) City



families in 1955 were spending about one-fourth more for food than in 1948 (chart 5), although food prices were only about 7 percent higher. Part of the increased expenditure may be attributed to larger average family size, but much of it is simply a shift towards more expensive types of foods, including the services that go with meals eaten away from home.

### Income Effect

Higher incomes--the median income of city families was 36 percent higher in 1955 than in 1948 although the general retail price level had risen only about 11 percent--made it possible for consumers to spend more for food away from home and serve more expensive types of foods at home, such as prepared and partially prepared foods and more costly cuts of meat. In 1955, for example, more than 1 out of 3 city families ate steak (other than round) at least once in the survey week, compared with only 1 out of 4 in 1948. Similarly, in 1955 about 19 percent of all food expenditures in the week were for food away from home, compared with 16 percent in 1948. About 28 percent of the expense for food at home in 1955 went for certain prepared and partially prepared foods, compared with 26 percent in 1948.

The trend toward increased purchases is not limited to city families. Farm families, too, though still getting a substantial amount of food from the home farm or garden, also buy more now than they once did. Over a 30-year period (chart 6) farm families in this country more than doubled their expenditures for food (after allowing for increase in prices) while decreasing their home production about a third. Thus the purchased share of total food used by the farm family rose from only 28 percent in 1923 to 60 percent in 1955. The increase represented increased outlay for both food away from home and food at home. For example, in the North Central region farm families in 1955 purchased two-thirds of the fruits and vegetables they used in the survey week compared with less than one-third in the earlier year (chart 7). In 1955, they purchased about a fifth of the total amount of milk they used, compared with practically none in the earlier period (chart 8). Many farm families have stopped producing milk for their own use. This has considerable nutritional significance because studies show, as in chart 9, that when farm families have to buy their milk, they use much less of it than when they produce it at home.

### Commercially Prepared Foods

Both the farm and city homemaker are turning more and more to foods with a higher degree of processing--to shorten and ease the work of preparing meals for the family. As related above, the city housewife in spring 1955 used 28 cents of each dollar spent for food eaten at home for such processed foods. The farm housewife, who got some of the family food from the home farm or garden, was able to use for such items 35 cents of each dollar she spent for purchased food.

This trend toward buying ready-prepared items is illustrated for North Central farm families for a few common convenient foods often used for quick meals (charts 10, 11, 12).

How much alike farm and city families now are in the use of processed foods is shown by the percent of families in the North Central region using some purchased items in the survey week in 1955:

	<u>Urban families</u>	<u>Farm families</u>
Bread.....	98	88
Flour mixes.....	49	46
Lunch meats.....	79	72
Peanut butter.....	42	31
Canned soup.....	59	30
Cheese.....	87	74
Cake.....	23	10
Crackers.....	60	62
Ice cream.....	70	64
Candy.....	47	47

## Changing Food Selection

The long-run general upgrading of the family food supply is evidenced by consumption of larger quantities of many foods. Compared with the depression days of 1936 and the war-time days of spring 1942, U. S. families now use more milk, more meat, and more fruits and vegetables. The 4-1/2 quarts of milk (calcium equivalent) consumed in a week per person in the average household in 1955 is over 1/4 quart more than in 1942 and over 1 quart more than in 1936. By contrast, families now use less grain products, with a larger share coming into the home as commercial baked goods, and fewer potatoes. Another point of interest is that in 1955 the city family of 2 or more with the very low income of less than \$1,000 (an income exceeded by 98 percent of all city families) served 3-1/2 pounds of meat, poultry, or fish per person in the week--about as much as the family with an income of \$5,000 or more in 1948 or 1942.

Change in amounts and types of food used has occurred for both farm and nonfarm families and at all income levels. There are still differences between the food patterns of low- and high-income families, but for most families, whatever their income, there is a wider variety of foods. Many foods that once signified special occasions have now become commonplace. For example in 1942, poultry was served in only 26 percent of the urban households in the survey week; even among city families with incomes of \$5,000-\$9,999, only 54 percent had any. In 1955 poultry was used by 55 percent or more of the city families at every income level except the lowest (less than \$1,000). Similarly in 1942, only 1 out of 3 farm families with an income of \$3,000 or more ate poultry in the week, but by 1955 1 out of 2 of those with less than \$1,000 had some. Changes in price relationships as well as in family income have affected consumption. From 1942 to 1955 the average price for chicken, as reported by urban families in the two surveys, increased by about one half while the average price paid for steak more than doubled.

The trend toward increased purchases and greater quantities of many important foods will undoubtedly continue. Increased incomes together with the growing percent of housewives who work outside the home will undoubtedly maintain the trend toward purchase of foods that are quick and easy to prepare. The wide opportunity for choice that homemakers now have because of the larger incomes and the greater variety of foods on the market provides an increasing area for improving and extending consumer education.

## DIETARY LEVELS<sup>2</sup>

According to the nationwide food consumption survey in 1955, average amounts of food brought into household kitchens were sufficient in all regions of the United States to provide more than the allowances recommended by the National Research Council for calories and eight key nutrients for which calculations were made. When the calculations for each household in the survey are scrutinized separately, however, it is apparent that many had food supplies that did not meet recommended allowances.

Chart 13 shows the need for improved diets for the country as a whole. The proportion of family diets not meeting the NRC allowances was greatest for calcium (29 percent) and next largest for ascorbic acid (25 percent). From 15 to 20 percent of the households had diets below recommended levels in vitamin A, thiamine, and riboflavin. A tenth or fewer had food furnishing less than recommended amounts of protein, iron, and niacin.

Few of the families, however, had diets that were very low in these nutrients. About 10 percent were below two-thirds of the allowance for ascorbic acid--50 milligrams per day per adult-male equivalent, but 50 milligrams is not considered a very low level by some authorities. Eight percent of all families were estimated to have food supplies furnishing less than two-thirds of the NRC allowance for calcium. The diets of even smaller percentages were below the two-thirds mark in other nutrients.

Although the charts use the term "diets," they should be read as meaning household or family food supplies--i.e., food that came into kitchens for consumption. No information

<sup>2</sup> By Faith Clark, adapted from talk at Nutrition Education Conference, Washington, D. C., April 1, 1957.

on amounts of food discarded as plate waste or during or after preparation was obtained in the survey. Hence, amounts of nutrients actually eaten may be smaller than the amounts shown in these charts. Allowance has been made, however, for estimated losses of ascorbic acid and the B-vitamins during cooking. Differences between households in size and composition have been taken into account through the calculation of averages per nutrition unit--an adult-male equivalent. The assumption is made in these calculations that all household members shared according to their relative nutritional needs.

A chart on the food intake of individuals, similar to chart 13, would undoubtedly show greater need for dietary improvement. Many studies of individuals suggest this, although they are not available for the total population as in this household survey. Such studies of individuals also give about the same priority as to the nutrients most often short, with calcium and ascorbic acid at the top.

## Trends in Dietary Levels

Diets in this country have shown considerable improvement since the large-scale survey in the 1930's when a third of the diets were classed as "poor." Today in probably as few as 10 percent of the households can the diets be called "poor" by the standards used in the earlier period.

Much of this improvement arises from the bread and flour enrichment program, initiated at about the time of the National Nutrition Conference for Defense in 1941. Economic conditions, newer developments in the marketing of foods, and nutrition education have also had a part in this improvement.

Almost all of the improvement, however, seems to have taken place between the mid-thirties and the early postwar period. Relatively little improvement in urban dietary levels has taken place since 1948 when a food consumption survey was made. Chart 14 compares dietary adequacy in 1948 and 1955. (Note that whereas chart 13 shows the proportion of families with diets not meeting NRC allowances, chart 14 and succeeding ones show proportions meeting NRC allowances.) In 1955 approximately the same proportion of urban household diets as in 1948 furnished recommended amounts of calcium, vitamin A, thiamine, and riboflavin--nutrients often in shorter than desirable supply. Some improvement in protein, iron, and niacin levels occurred but also some lowering of ascorbic acid levels.

The higher levels of protein, iron, and niacin are due chiefly to the greater consumption of meat, poultry, and fish. Chart 15 shows that in 1955 consumption of meat, poultry, and fish by urban families was about 4-1/3 pounds a person a week compared with only a little over 3 pounds in 1948. The lowering of ascorbic acid levels resulted chiefly from a shift in the pattern of household consumption of fruits and vegetables. Quantities of milk, fats, and oils were about the same in the two periods while grain products continued their downward trend.

It appears then that in spite of increased spending by families for food in recent years (chart 5) relatively little improvement in the nutritive content of their diets has occurred. This fact would seem to be a challenge to educational programs that deal with foods and nutrition. Food habits of many still need to be modified. Many people still need to be convinced of the value of some modification and to learn what makes up a proper assortment of foods for good health.

## Dietary Levels in Four Regions

In breaking the nation's households into smaller groups for comparison, let us look first at the four major regions as defined by the Census: The Northeast, the North Central region, the South, and the West. Charts 16 and 17 show the percentages of the households in each region that had food supplies that furnished the recommended allowances of the



National Research Council. In general, households in the three regions in the North and West fared equally well, with households in the South less well fed, nutritionally speaking. The chief exception was in thiamine in which diets of families in the Northeast were more likely to fall short of recommended levels than diets of families in other regions (chart 16). Consumption of grain products and of pork was relatively low in the Northeast. This accounts in large part for the fact that only three-fourths of the families had diets furnishing the recommended amounts of thiamine compared with more than four-fifths in the other three regions.

The relatively poor position of the South shows up more sharply for calcium and vitamins A and C (chart 17). Low levels of milk consumption account for the South's poor showing in calcium. Smaller consumption of fruits and vegetables of all kinds and especially of citrus fruit and tomatoes resulted in less ascorbic acid in Southern diets. Only two-thirds of the families in the South had food supplies during the spring of 1955 that furnished the recommended amount of ascorbic acid compared with four-fifths or more in the other regions. Whether or not this comparison might be different in other seasons of the year is not known as little information is available on seasonal food consumption especially of farm families, an important group in the population of the South. What little information is available on urban diets indicates that in nutritive content spring diets are closer to the year's average than are the diets of any of the other three seasons.

### City-Farm Differences

Though city-farm differences in food consumption patterns have become less marked over the past several decades, considerable difference in dietary levels still exists. In general, farm diets furnish larger amounts of all nutrients except vitamins A and C.

In order to make city-farm comparisons as clearcut as possible, comparisons have been restricted to one region at a time. Chart 18 shows the proportion of families in the North Central region with food supplies furnishing the NRC allowances. Percentages for farm families are slightly greater than for city families for protein, calcium, and thiamine because they used more grain products, milk, fats, and sugar. (Percentages for calories, iron, riboflavin, and niacin are also greater.) The farm families' selection of fruits and vegetables in the spring resulted in slightly lower levels of vitamin A and ascorbic acid in their diets. They have tended to use less citrus fruit than city families. By the spring of 1955, even though their consumption of this ascorbic acid-rich food had increased considerably over earlier periods, they still consumed less than city families in this region. It may be that in the summer and early fall, when homegrown tomatoes and other vegetables are available, this difference in the vitamin A and ascorbic acid content of farm and city diets would be even smaller than the chart shows.

Chart 19 shows that city-farm differences in the South, like those in the North Central region, are pronounced for calcium and thiamine. Protein levels of farm diets, however, are not quite so satisfactory as those of city diets but over four-fifths of each group had food supplies furnishing NRC recommended amounts. Vitamin A and ascorbic acid are definitely more in need of improvement in farm than city diets. Only a little more than half of the farm families in the South had diets meeting recommended levels of ascorbic acid. Almost a tenth (7 percent) of the total farm group in this region had food furnishing less than 25 milligrams per adult-male equivalent per day, one-third of the NRC allowance.

### Income and Family Diets

Because of home food production, which dollarwise now makes up 40 percent of the average farm family's food, dietary levels of farm families are, generally speaking, less related to their money incomes than are the dietary levels of city families.



In rural nonfarm and city groups, on the other hand, dietary levels and income are quite closely related. The diets of higher income families contain larger quantities of nearly all nutrients than do those of low income groups. Chart 20 shows that the differences measured in the 1955 survey were particularly marked between the low- and the middle-income groups. For example, only 58 percent of the low-income group had food supplies furnishing the recommended amount of calcium compared with 73 percent of the middle-income group. Ascorbic acid levels rose sharply with income throughout the income scale. The increase in this nutrient with income is closely related to the increased consumption of fresh fruits and fruit juices.

Thiamine levels, however, are little related to family income. Sources of thiamine in diets are chiefly grain products, meat (especially lean pork), and milk. Although consumption of milk and meat increases with income (meat is shown in chart 4), consumption of grain products and of lean pork cuts generally decreases. Hence thiamine levels remain about the same.

The reason for the jump in calcium levels between low- and middle-income groups of city families that appears in chart 20 is found in increased consumption of milk, shown in chart 3. The higher levels of vitamin A and ascorbic acid in diets of the higher income groups are accounted for by the use of greater quantities of fruits and vegetables, also shown in chart 3.

A question that may well be raised is: Would greater purchasing power, i.e., larger incomes, solve the problem of dietary adequacy? From the charts it is seen that many families have diets furnishing less than recommended amounts of several nutrients. This does not mean that those families were poorly fed or subject to malnutrition, but it does mean that their diets were probably in need of improvement. The families with the diets most in need of improvement were for the most part those in the low-income groups and those in the South. If we carry the analysis a little further, we find that many of the poor diets in the South were related to the generally lower income levels there.

Can we then expect improved incomes to do all of the job of raising dietary levels? The answer is "No," because we see that the diets of many high-income families are not up to recommended levels. There are, of course, families at all income levels who obtain adequate diets. It is possible to obtain a nutritionally adequate diet on much less money than the average family spends, but it takes know-how and enough concern with nutrition to alter food habits and spend less for some popular foods in order to shift money to foods needed for nutritionally better diets. Nevertheless, the fact remains that the more people spend for food, the more likely they are to have good diets.

Let us assume that all families could spend as much for food as those families in the upper third of the income distribution. The dark bars on chart 21 show the sizable proportions of families still remaining with diets that would need improvement. The proportions having diets not meeting NRC allowances would be considerably smaller than the proportions shown for the total population, including families with low-incomes--the light bars, which are the same bars as in chart 13.

Of course we do not expect to live in a society without income differences among families. But, since increased purchasing power has helped to improve diets over the past two decades, it is reasonable to ask whether continued income increases would bring our nutritional situation up to where the nutritionist would wish to see it. The chart shows that programs that help people develop better food habits would still be needed, even under economic conditions more favorable to improved diets than we are likely to reach.

Chart 21 also shows that the various nutrients are affected differently by changes in the economic situation. For example, a nutrition education program for a period of prosperity would not need to emphasize protein or niacin. When people in this country have more money to spend for food they are likely to buy meat, a rich source of those nutrients. Thiamine, on the other hand, would need to be emphasized in a nutrition program

for a prospering economy. The high-income diet is likely to mean a shift away from grain products and pork, and the foods chosen to replace them are not equally good as sources of thiamine.

Continued prosperity could also mean that more families would add milk and fruits and vegetables to their diets. But, as the chart shows, even under very favorable economic conditions, good sources of calcium and ascorbic acid would still need to be emphasized in nutrition education programs.

Thus the job of nutrition education would appear to be a continuing one. Large proportions of the population--though not suffering from malnutrition--have food supplies that furnish less than recommended amounts of several nutrients. The wide opportunity for choice that homemakers now have because of larger incomes and the greater variety of foods on the market provide an increasing opportunity for improving and extending consumer education. Families whose incomes limit their purchasing power especially need help, but the job extends to families throughout the income scale.

### FATS IN DIETS <sup>3</sup>

Because of the current interest in the kinds and amounts of fat in diets, the fat in food brought into household kitchens has been calculated from data obtained in the 1955 food consumption survey. An average of 155 grams of dietary fat per person per day was available for consumption according to these calculations. The amount was somewhat higher in farm diets than in nonfarm, 170 grams and 153 grams respectively. It should be noted, however, that no deductions have been made in the survey for food discarded. Such discards probably include relatively large amounts of fat, but the survey provided no basis for quantitative estimates.

The share of the calories that came from fat was 44 percent, from protein 13 percent, and from carbohydrate the remaining 43 percent. Rural-urban differences in these proportions were not large because although rural diets provided more fat, they also provided more protein and carbohydrate.

The proportion of calories from fat in urban diets, 45 percent, was larger than was found in the 1948 survey, 42 percent. The increase was due to the greater consumption of meat, poultry, and fish and the smaller consumption of grain products and potatoes in the later year. The shift toward a higher proportion of fat in household food supplies is even more marked between 1936 and 1955. In the survey made in 1936, only 38 percent of the calories in the food of all households (urban and rural) was provided by fat, compared with 44 percent in the 1955 survey. This trend is substantiated by estimates based on per capita food consumption derived from statistics on production, stocks, and utilization.

Of the four regions, the Northeast had the lowest average amount of fat, 145 grams per person per day, and the West had the highest, 163 grams. In each region the amounts were somewhat higher in farm than in nonfarm diets. Although the amount of fat available for household consumption was smaller in the Northeast than in the other regions, the proportion of the calories that came from fat (45 percent) was as high as in any region. The South had the lowest percentage of calories from fat (42 percent), chiefly because of a higher calorie diet that included higher consumption of grain products and sugars.

### Sources of Fat

A large share of the fat in U. S. diets enters the kitchen as part of other foods, not usually thought of primarily as sources of fat. For example, meat, poultry, and fish

<sup>3</sup> Reprinted, with additions by Eloise Cofer, from Highlights in Dietary Levels of Households in the United States and in the West, Household Food Consumption Survey 1955, Reports Nos. 6 and 10.

provided 27 percent of the total dietary fat; milk and milk products (other than butter), eggs, baked goods, and nuts provided 33 percent. The remaining 40 percent was furnished by visible fats and oils, including bacon and salt pork (table 1).

TABLE 1.--Sources of Fat, Households in the United States and in Four Regions: Percentages from food used at home in a week, April-June 1955

Food group	United States	North-east	North Central	South	West
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Beef, veal, lamb .....	14.2	16.9	15.8	9.8	16.7
Pork (excluding bacon, salt pork).....	9.7	9.7	10.6	9.9	7.6
Poultry, fish .....	2.9	3.9	2.4	2.3	2.8
Subtotal .....	26.8	30.5	28.8	22.0	27.1
Bacon, salt pork .....	8.6	5.3	6.9	13.3	7.3
Lard .....	5.9	1.9	3.9	12.3	2.4
Other shortening .....	5.8	4.1	5.8	7.0	6.2
Oils, salad dressing .....	6.0	6.5	4.7	6.2	7.4
Margarine .....	6.7	6.9	6.2	6.5	8.1
Butter .....	6.8	8.7	8.2	4.4	5.9
Subtotal .....	39.8	33.4	35.7	49.7	37.3
Milk, cream, ice cream, cheese.....	18.0	19.8	19.8	14.7	18.8
Eggs .....	3.6	3.5	3.6	3.5	3.8
Other foods (purchased baked goods, nuts, fruits, vegetables, etc.)	11.8	12.8	12.1	10.1	13.0
Subtotal .....	33.4	36.1	35.5	28.3	35.6
Total .....	100.0	100.0	100.0	100.0	100.0

The markedly different pattern of fat sources in the South is related to the food habits and lower income level of the region. Less of the fat came from dairy products and meat, poultry, and fish, while the share from bacon and salt pork was much larger. Fats used for home baking, especially lard, were more important as sources of dietary fat in the South than in other regions.

## Fatty Acids

Because nutrition research is concerned with the composition as well as the amount of fat in the diet, estimates have been made of the total amounts of saturated fatty acids and of two unsaturated fatty acids, oleic and linoleic acid, in food supplies of households in the United States and the four regions. These estimates are shown in tables 2 and 3.

The fat in the diets of the households in the North Central region and in the West contained a greater quantity of saturated fatty acids than in the other two regions. Lower levels of oleic acid were estimated to be furnished by the diets of households in the Northeast. Amounts of linoleic acid were slightly higher in the South and West than in the Northeast and North Central regions.

The percentage of total calories from the fatty acids show slight regional differences as follows:



	<u>United States</u>	<u>North- east</u>	<u>North Central</u>	<u>South</u>	<u>West</u>
Fat, total .....	43.6	44.6	43.9	42.4	44.7
Saturated fatty acids .....	18.3	19.0	18.9	16.9	18.7
Oleic acid .....	18.6	18.4	18.7	19.0	18.9
Linoleic acid .....	4.5	4.9	4.4	4.6	4.9

The percentage from saturated fatty acids was slightly lower in the South (17 percent) than in the other three regions (19 percent). Percentages from the monounsaturated fatty acid oleic (18 to 19 percent) and the polyunsaturated fatty acid linoleic (4 to 5 percent) differed even less among regions.

Oleic acid, the unsaturated fatty acid that was consumed in largest amounts, was furnished by a wide variety of foods. In the United States as a whole, 27 percent came from meat, poultry, and fish, 29 percent from milk and milk products (other than butter), eggs, baked goods, and nuts. The remaining 44 percent was furnished by visible fats and oils, including bacon and salt pork. These percentages are similar to those for total fat.

Regional differences in sources of oleic acid followed the same pattern as differences in sources of total fat. That is, in the South less of the oleic acid came from meat, poultry, and fish and dairy products and more from fat pork cuts, lard, and shortening, than in the North and West.

Plant tissues, the richest source of linoleic acid, furnished 59 percent of this polyunsaturated fatty acid but only 29 percent of the total fat (assuming that 80 percent of the shortening and all of the margarine was made from vegetable oil and that all of the fat in purchased baked goods and mixtures was of vegetable origin). Of the plant foods, oils and salad dressings furnished 28 percent of the total amount of linoleic acid but only 6 percent of total dietary fat.

TABLE 2.--Total Fat and Selected Fatty Acids in Diets, by Food Group, Households in the United States: Average per person per day from food used at home in a week, April-June 1955

Food group	Fat total	Saturated fatty acids	Oleic acid	Lino- leic acid
	Grams	Grams	Grams	Grams
Beef, veal, lamb.....	22.1	11.0	8.8	0.4
Pork (excl. bacon, salt pork).....	15.1	6.0	7.6	1.5
Poultry, fish .....	4.4	1.2	1.6	.8
Bacon, salt pork .....	13.4	5.4	6.7	1.3
Lard .....	9.2	3.7	4.6	.9
Other shortening .....	9.0	2.2	5.8	.7
Oils, salad dressing .....	9.3	1.9	2.8	4.6
Margarine .....	10.4	2.6	6.4	.8
Butter .....	10.6	7.0	2.9	.4
Milk, cream, ice cream, cheese.....	28.0	18.5	7.6	1.0
Eggs .....	5.6	2.0	2.5	.4
Other foods (purchased baked goods, nuts, fruits, vegetables, etc.) .....	18.0	3.6	9.0	3.6
Total.....	155.1	65.1	66.3	16.4



Table 3.--Total Fat and Selected Fatty Acids in Diets, by Food Group, Households in Four Regions: Average per person per day from food used at home in a week April-June, 1955

Food group	Fat total	Satu- rated fatty acids	Oleic acid	Lino- leic acid	Fat total	Satu- rated fatty acids	Oleic acid	Lino- leic acid
	Grams	Grams	Grams	Grams	Grams	Grams	Grams	Grams
	Northeast				North Central			
Beef, veal and lamb .....	24.6	12.3	9.8	0.5	25.2	12.6	10.1	0.5
Pork (excl. bacon, salt pork).....	14.1	5.6	7.0	1.4	17.0	6.8	8.5	1.7
Poultry, fish.....	5.7	1.6	2.2	1.2	3.9	1.1	1.4	.7
Bacon, salt pork .....	7.7	3.1	3.8	.8	11.1	4.4	5.6	1.1
Lard .....	2.7	1.1	1.4	.3	6.2	2.5	3.1	.6
Other shortening .....	5.9	1.5	3.8	.5	9.2	2.3	6.0	.7
Oils, salad dressing ....	9.6	1.9	2.9	4.8	7.6	1.5	2.3	3.8
Margarine .....	10.1	2.5	6.3	.8	9.9	2.5	6.1	.8
Butter .....	12.5	8.2	3.4	.4	13.2	8.7	3.6	.5
Milk, cream, ice cream, cheese.....	28.8	19.0	7.8	1.0	31.7	20.9	8.6	1.1
Eggs .....	5.1	1.8	2.2	.4	5.7	2.0	2.5	.5
Other foods (purchased baked goods, nuts, fruits, vegetables, etc.).....	18.7	3.7	9.4	3.7	19.5	3.9	9.8	3.9
Total.....	145.5	62.3	60.0	15.8	160.2	69.2	67.6	15.9
Food group	South				West			
Beef, veal and lamb .....	15.2	7.6	6.1	0.3	27.1	13.6	10.8	0.5
Pork (excl. bacon, salt pork) .....	15.3	6.1	7.6	1.5	12.6	5.0	6.3	1.3
Poultry, fish .....	3.7	1.0	1.4	.7	4.5	1.2	1.6	.8
Bacon, salt pork .....	20.7	8.3	10.4	2.1	11.9	4.8	6.0	1.2
Lard .....	19.2	7.7	9.6	1.9	3.9	1.6	2.0	.4
Other shortening .....	10.9	2.7	7.1	.9	10.2	2.6	6.6	.8
Oils, salad dressing ....	9.6	1.9	2.9	4.8	12.1	2.4	3.6	6.0
Margarine .....	10.1	2.5	6.3	.8	13.2	3.3	8.2	1.1
Butter .....	6.8	4.5	1.8	.2	9.7	6.4	2.6	.3
Milk, cream, ice cream, cheese.....	22.8	15.0	6.2	.8	30.8	20.3	8.3	1.1
Eggs .....	5.5	1.9	2.4	.4	6.3	2.2	2.8	.5
Other foods (purchased baked goods, nuts, fruits, vegetables, etc.).....	15.7	3.1	7.8	3.1	21.2	4.2	10.6	4.2
Total.....	155.5	62.3	69.6	17.5	163.5	67.6	69.4	18.2

Regional differences in sources of linoleic acid were not large. Oils and salad dressing in diets in the West furnished over a gram a person a day more than in any other region. As a source of total linoleic acid, however, i.e.--proportion of the total amount--oils and salad dressing rated only a little higher in the West, 33 percent, than in the Northeast, 30 percent. In both of these regions, the proportions from oils and salad dressing were somewhat higher than in the North Central region (24 percent) and in the South (27 percent).

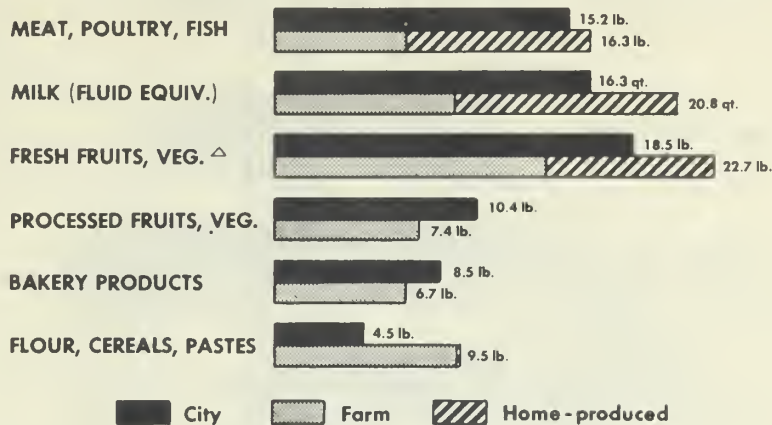
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# FOOD CONSUMPTION: CITY, FARM

*North Central Region, Spring 1955*

Quantity per family in a week\*



\* MEDIAN INCOME CLASS

$\Delta$  EXCLUDES POTATOES

U. S. DEPARTMENT OF AGRICULTURE

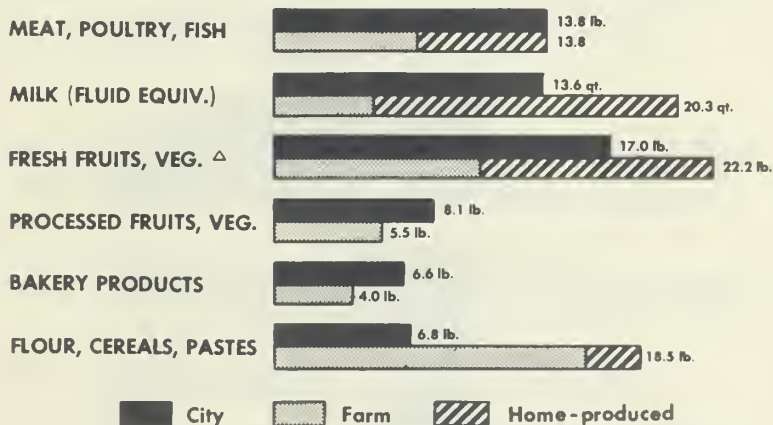
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CHART 1

# FOOD CONSUMPTION: CITY, FARM

*Southern Region, Spring 1955*

Quantity per family in a week \*



\* MEDIAN INCOME CLASS

$\Delta$  EXCLUDES POTATOES

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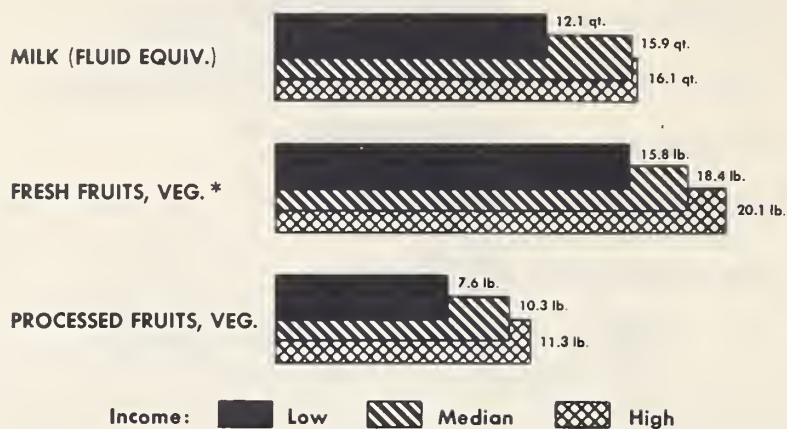
CHART 2

CHART 3

## INCOME AND FOOD CONSUMPTION

*Per City Family, Spring 1955*

Food at home in a week



\* EXCLUDES POTATOES

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CHART 4

## INCOME AND FOOD CONSUMPTION

*Per City Family, Spring 1955*

Food at home in a week



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CHART 5

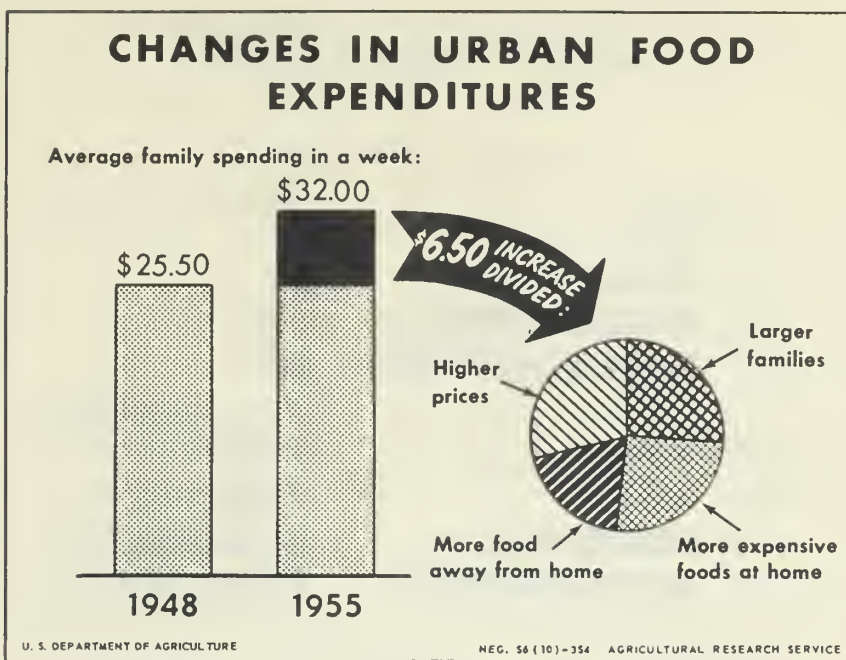


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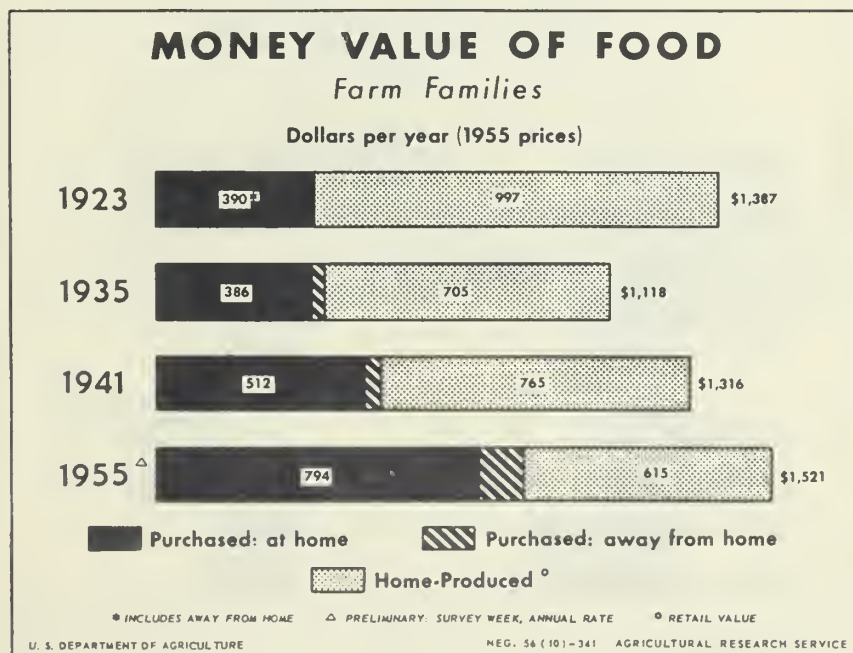


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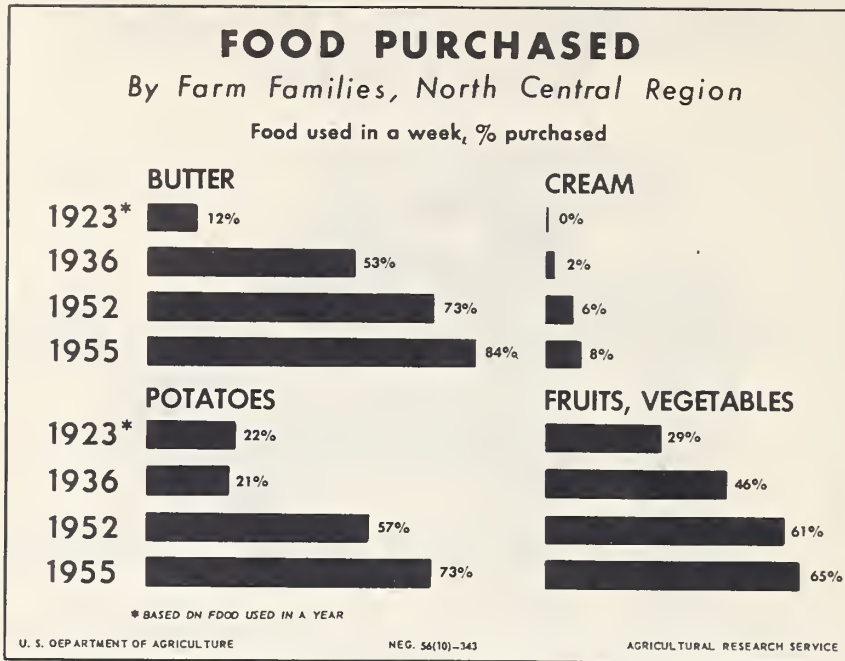


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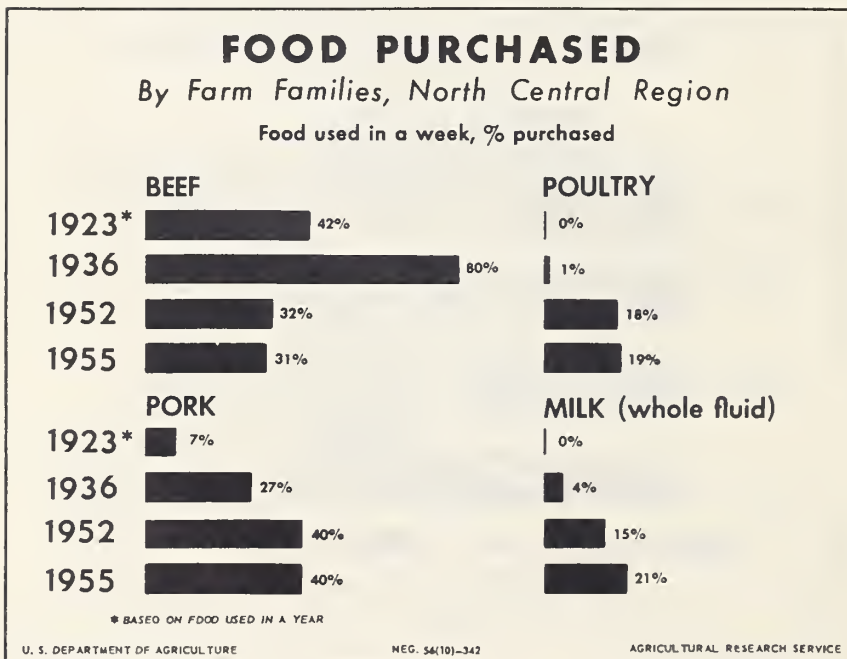


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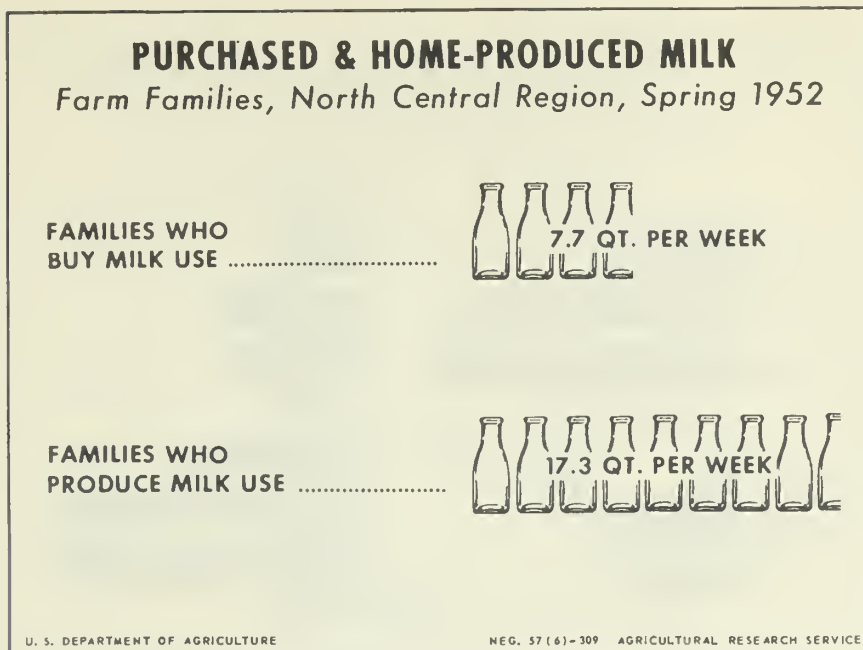


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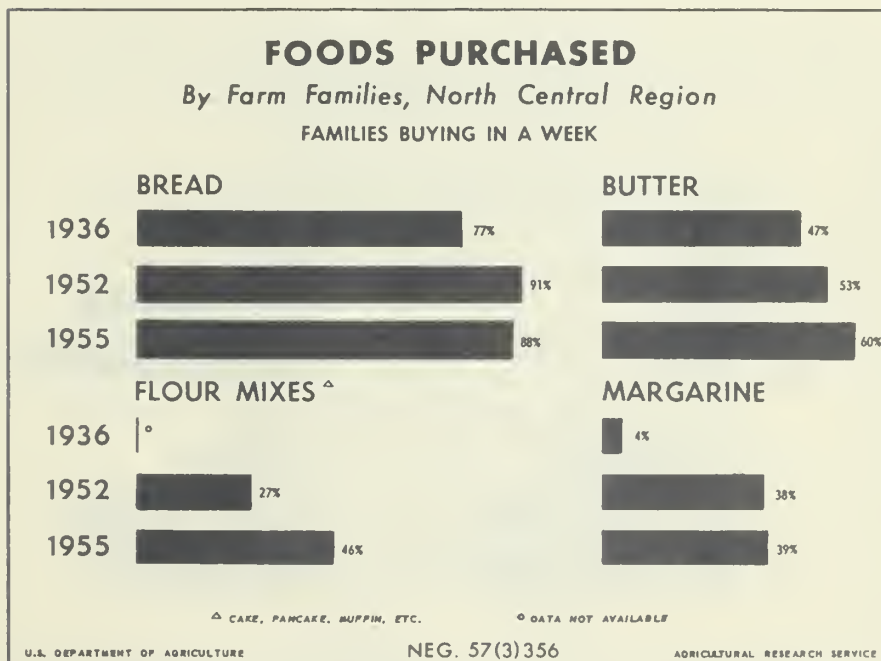




CHART 11

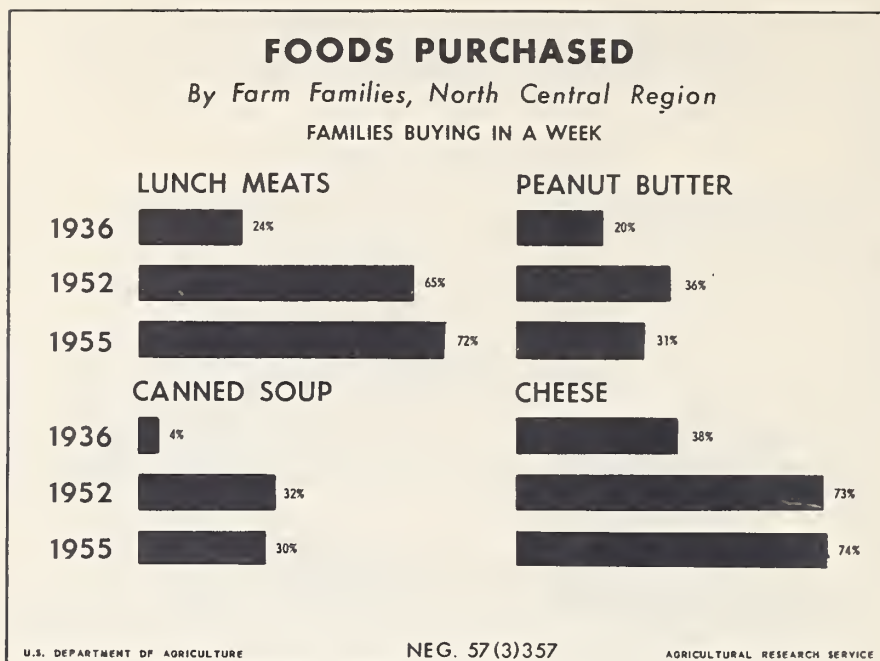


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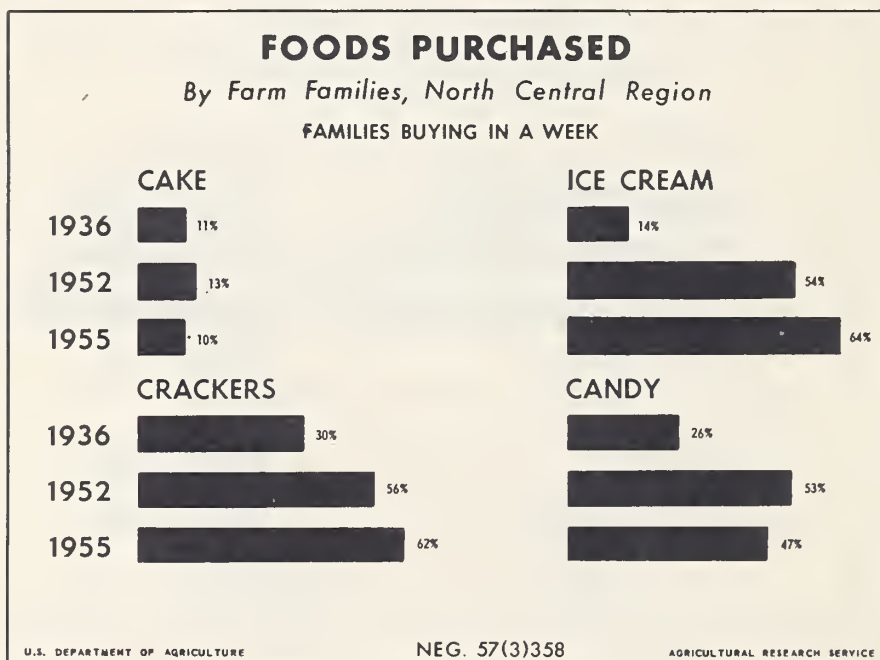


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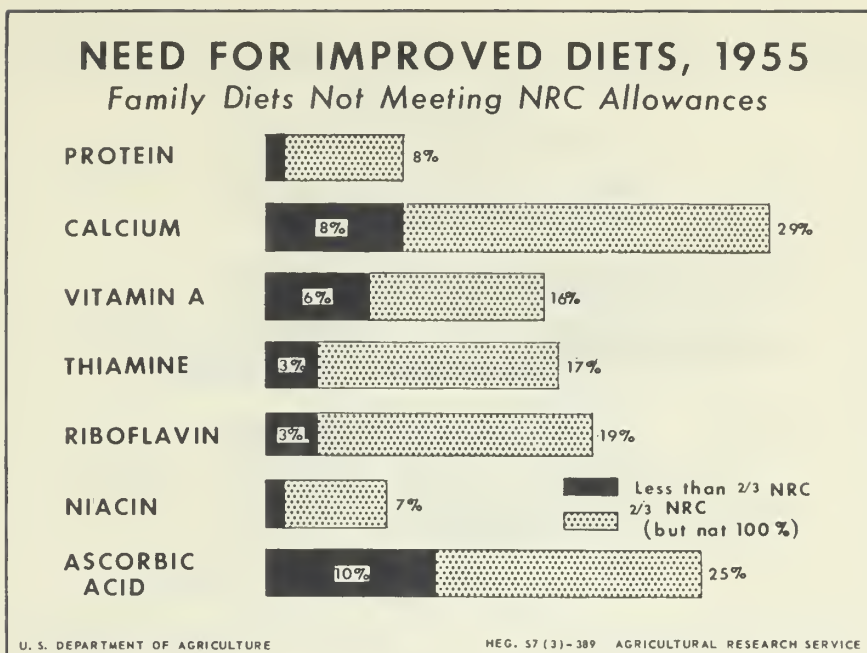


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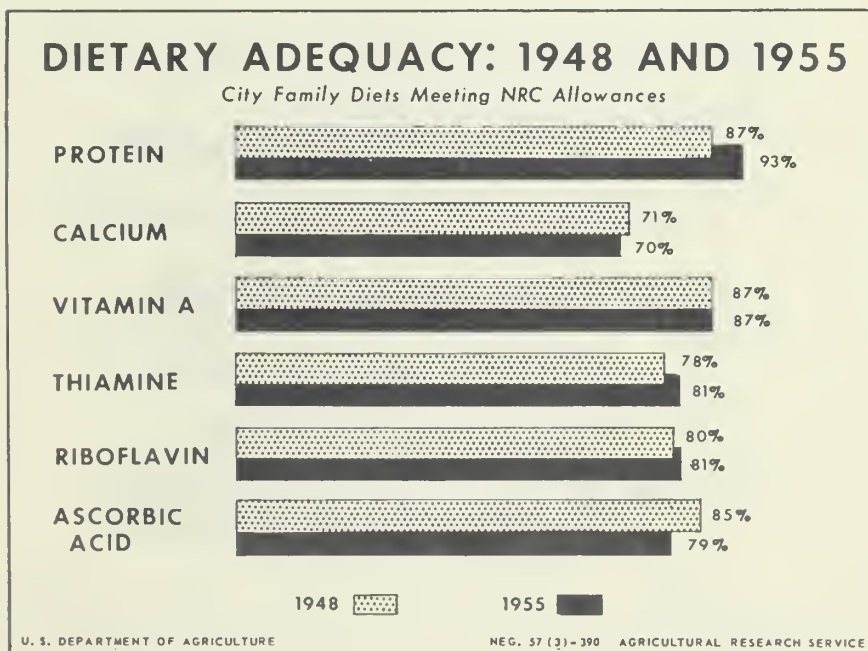
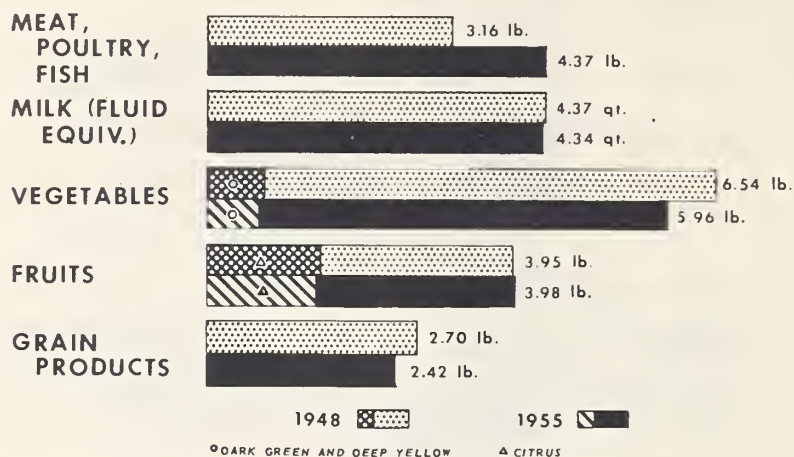


CHART 15

# FOOD CONSUMPTION: 1948 AND 1955

*City Families*

Quantity per person in a week



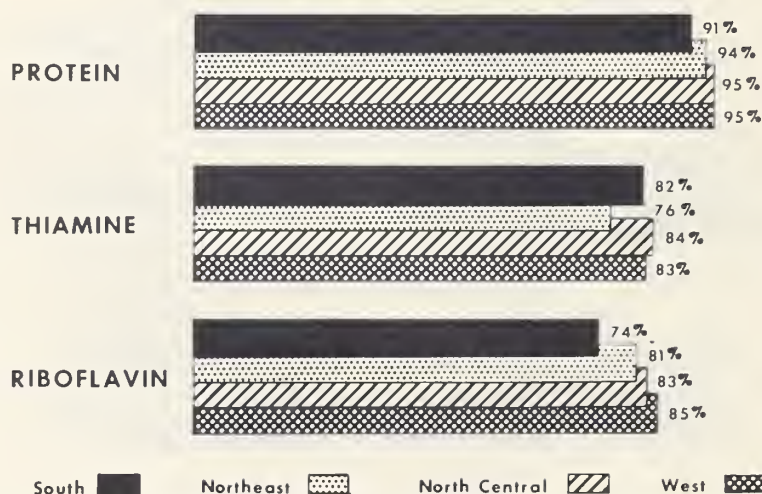
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CHART 16

# REGION AND DIETARY ADEQUACY

*City Family Diets Meeting NRC Allowances, 1955*



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CHART 17

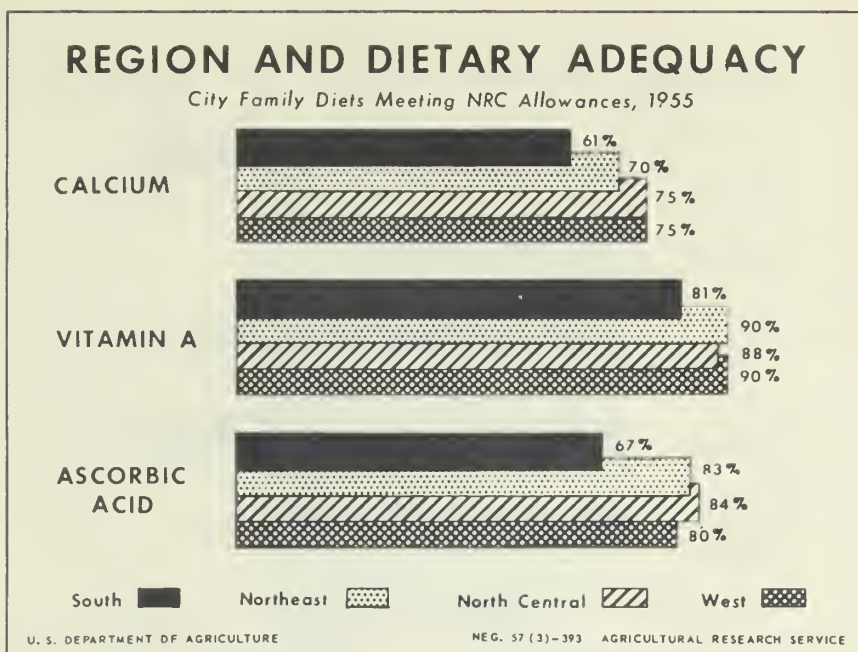


CHART 18

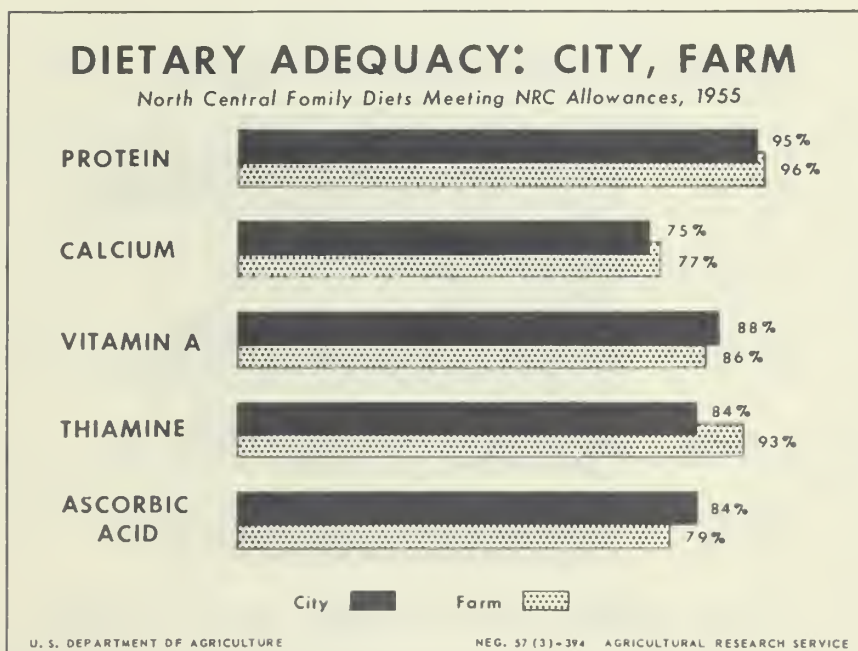


CHART 19

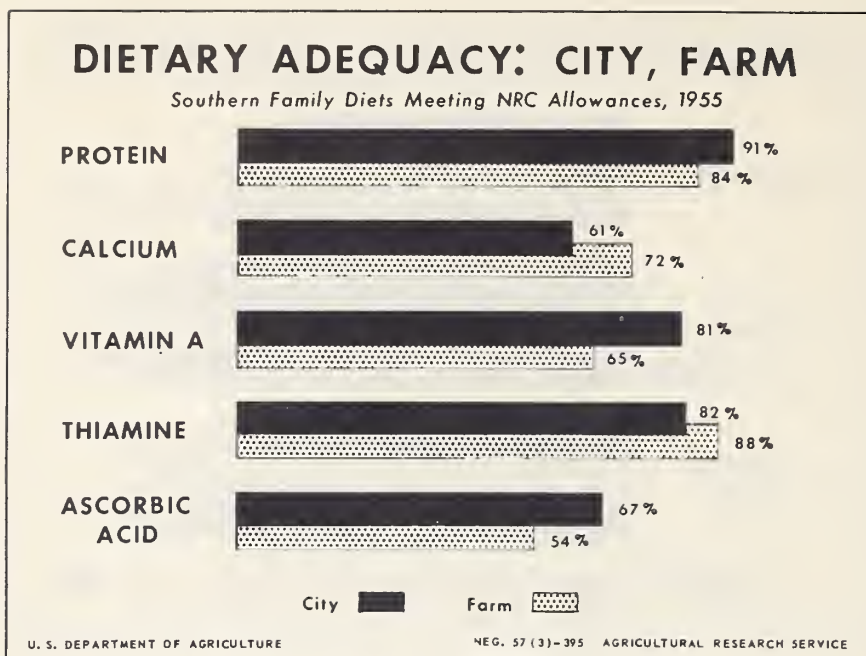
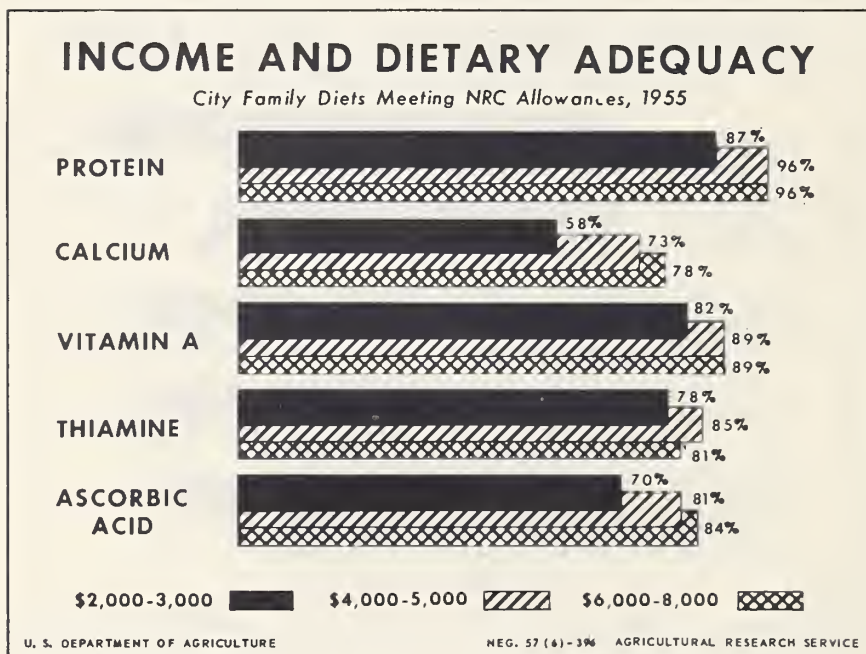


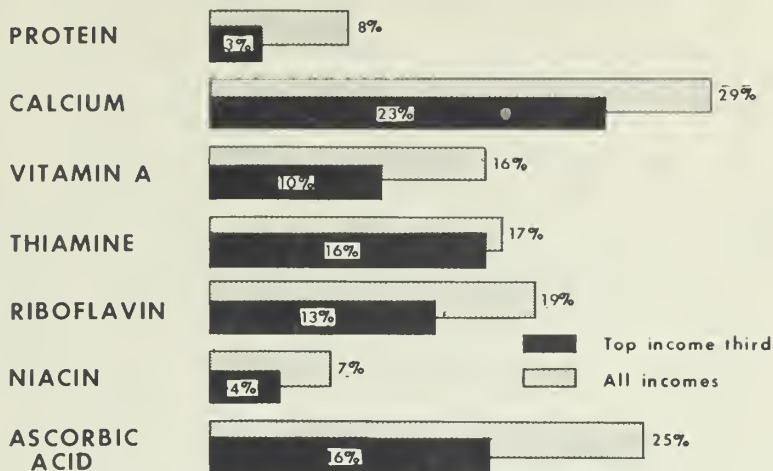
CHART 20



## CHART 21

### NEED FOR CHANGED FOOD HABITS, 1955

*Family Diets Not Meeting NRC Allowances*



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2. Enclose check or money order payable to Office of Information, U. S. Department of Agriculture.

Current prices:

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PUBLICATIONS IN SERIES, HOUSEHOLD FOOD CONSUMPTION SURVEY, 1955  
*U. S. Department of Agriculture*

1. Food Consumption of Households in the United States
2. Food Consumption of Households in the Northeast
3. Food Consumption of Households in the North Central Region
4. Food Consumption of Households in the South
5. Food Consumption of Households in the West
6. Dietary Levels of Households in the United States
7. Dietary Levels of Households in the Northeast
8. Dietary Levels of Households in the North Central Region
9. Dietary Levels of Households in the South
10. Dietary Levels of Households in the West

Single copies of these reports may be obtained free from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

Later reports are planned to include information on amounts of food canned and frozen at home in 1954, on home food production during 1954, and on home baking practices, 1954-55.